CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- Viable, biologically substantially pure exfoliated
- 2 fecal colonocytes isolated at normal ambient
- 3 temperature.
- 1 2. The colonocytes of claim 1 bearing marker
- 2 indicative of specific gastrointestinal condition.
- 1 3. The colonocytes of claim 2 bearing marker indicative
- of neoplastic transformation.
- 4. The colonocytes of claim 2 bearing marker indicative
- 2 of immune dysfunction.
- 1 5. The colonocytes of claim 2 showing abnormality
- 2 indicative of non-neoplastic gastrointestinal
- 3 pathology.
- 1 6. The colonocytes of claim 1 being epithelial or
- 2 nonepithelial cells of lymphoid origin.
- 7. The colonocytes of claim 1 expressing a chimeric
- 2 immunoglobulin IgC.
- 1 8. The colonocytes of claim 1 expressing only IgA and
- 2 CFc.
- 9. The colonocytes of claim 1 expressing only CFc.
- 1 10.A transport medium for collecting a fecal sample,
- comprising:
- 3 (a) a sufficient amount of an agent to sequester
- 4 proteases present in fecal matter;

5		(b) a sufficient amount of	a mucolytic agent to
6		destroy mucus present in fed	cal matter; and
7		(c) a sufficient amount of	a bacteriocidal agent
8		to inhibit bacterial activ	vity in fecal matter.
1	11.	The transport medium of claim	10, wherein said agent
2		for sequestering proteases is	selected from the group
3		consisting of plasma proteins	s, gel forming polymers
4		and synthetic resins.	
1	12.	The transport medium of claim	11. wherein said plasma
2		proteins are bovine serum al	bumin, egg albumin or
3		human serum albumin.	
1	13.	The transport medium of claim	12, wherein the
2		mucolytic agent is selected fr	om the group consisting
3		of N-acetyl cysteine, b-merca	aptoethanol, capsaicin,
4		dithiothreitol and guaiacol.	
1	14.	The transport medium of claim	n 13, wherein the
2		bacteriocidal agent is selec	ted from the group
3		consisting of thimerosal, an	tibiotics and sodium
4		azide.	
1	15.	The transport medium of clai	m 14 being a solution,
2		comprising:	
3		sodium bicarbonate:	350-500 mg;
4		bovine serum albumin:	2.5-15 gm;
5		N-acetyl cysteine:	250-500 mg;
6		Thimerosal:	100-300 mg; and
7		Duckle Caline Co	500 ml

1	16.	The transport medium of claim 15 being devoid of
2		thimerosal, thereby transforming into a dispersion
3		or suspension medium.
1	17.	A method for isolating biologically substantially
2		pure exfoliated fecal colonocytes at normal ambient
3		temperature, comprising the steps of:
4		(a) collecting a fecal sample in a transport medium
5		maintained at normal ambient temperature;
6		(b) dispersing the fecal sample in said transport
7		medium diluted with a suspension medium;
8		(c) sedimenting cells present in the diluted
9		transport medium of step (b) to isolate the cells
10		from impurities by layering the cell suspension
11		over a medium of heavier density;
12		(d) subjecting the cells in step (c) to an influence
13		resulting in the formation of a cellular band at
14		a boundary with said heavier medium; then
15		(e) recovering biologically substantially pure
16		colonocytes from said cellular band.
1	18.	The method of claim 17, wherein said heavier
2		medium is of density ranging from about 1.033 to
3		1.20.
1	19.	The method of claim 18, wherein said heavier
2		medium is of density 1.20.

1 20. A method for detecting colorectal cancer,
2 comprising the steps of:

3	(a)	obtaining	bi	ologically	substa	antially	pure
4	colo	onocytes; th	en				
5	(p)	reacting s	aid	colonocyte	s with	a reage	nt to
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- detect the presence of a marker determinative of

 cancer, occurrence of a positive reaction of said

 colonocytes with said reagent being indicative of

 the presence of cancer.
 - 21. The method of claim 20, wherein said reagent is fluorescently labelled antibodies or plant lectins that generate a colored product.
 - 22. A method for determining mucosal immunity of GI tract, comprising the step of comparing the number of immunocoprocytes recovered from a subject whose GI tract mucosal immunity is to be determined, with the number of immunocoprocytes recovered from a normal subject, a statistically significant deviation from normal value being indicative of the level of immune dysfunction.
 - 23. A method for diagnosing GI tract pathology, comprising the step of determining the presence of inflammatory cells in a stool sample of a subject suspected of GI tract pathology, the presence of inflammatory cells being indicative of GI tract pathology.
- 24. The method of claim 23, wherein the presence of inflammatory cells is determined by reacting the

3		cells with antibodies to CD45 or COX-2, the
4		cells that bind with said antibodies being
5		inflammatory cells.
1	25.	A method of producing antigen-specific monoclonal
2		antibodies, comprising the step of employing
3		antigen-specific immunocoprocytes as a clone in a
4		standard hybridoma technique and recovering antigen-
5		specific monoclonal antibodies.